

REMARKS

Claims 1-22 remain pending in the present application. Clarifying amendments have been made to claims 1, 13 and 22. Accordingly, reconsideration and allowance for all of the claims in the present application as amended are earnestly solicited in view of the following remarks.

Proposed drawing corrections are provided herein to address the drawing objections raised in paper no. 3. Accordingly, it is respectfully requested that these drawing objections be reconsidered and withdrawn.

Claims 1-8 and 10-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 2,516,387 to Holicer and claims 9 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Holicer in view of German document No. 1947093 to Wahli. These rejections are respectfully traversed.

Claims 1, 13 and 22 of the present application are directed to pressure relief valves for selectively discharging pressurized fluid from pressure vessels, piping systems and other equipment and sources of pressurized fluid. For the pressure relief valve to operate properly, it is essential for the valve to reliably and repeatably open at the predetermined opening pressure of the valve so that overpressure conditions of the vessel are avoided. Claims 1, 13 and 22 of the present application recite pressure relief valves comprising a housing, a valve member and a spring coupled to the valve member. The valve member includes an arrangement of through-holes that restrict fluid flow when the valve member is in a closed position during normal operating conditions. The spring coupled to the valve member applies a predetermined spring force to bias the valve member into contact with the seal surface in this closed position. When the fluid pressure exceeds the predetermined spring force, an over pressure condition is detected and pressurized fluid is allowed to pass through the through holes of the valve member and out of the discharge opening. As a result, the claimed pressure relief valve facilitates reliable and repeatable operation which avoids overpressure conditions of the pressure vessel.

Holicer is relied upon to disclose a valve apparatus for controlling and handling inflammable fluids. As illustrated in Fig. V, the valve apparatus of Holicer includes a body 1, a channel 16, a branch 53, a cross channel 53a, a valve head 54, ports 55, a valve spring 58, a retaining plug 59, and an outlet 60. The relief valve is normally closed by the pressure and

operation of the valve spring 58. However, Holicer does not disclose a valve member and a spring coupled thereto as recited in claims 1, 13 and 22 of the present application. In particular, Holicer does not disclose a valve member having an arrangement of through-holes to restrict fluid flow when the valve member is in a closed position during normal operating conditions and to allow pressurized fluid to pass therethrough when the predetermined spring force is exceeded during over pressure conditions as claimed in the present application. As a result, Holicer does not disclose a pressure relief valve for facilitating reliable and repeatable operation which avoids overpressure conditions of the pressure vessel as claimed in the present application.

In the rejection to dependent claims 9 and 22, it is acknowledged that Holicer fails to suggest or imply an annular groove formed in the seal surface receiving an elastomeric seal ring and a base having a passage. Therefore, Wahli is relied upon to disclose a base and a valve enclosed by a cover 1. However, Wahli fails to cure the deficiencies of Holicer with respect to the predetermined spring force for allowing pressurized fluid to pass through the through-holes and the discharge opening in the housing as recited in the claims 9 and 22. Accordingly, it is respectfully submitted that claims 1-22 of the present application patentably define over Holicer and the combination of Holicer and Wahli and it is respectfully requested that these rejections be reconsidered and withdrawn.

In view of these amendments and for all of the above stated reasons, it is respectfully submitted that all of the outstanding rejections and objections have been overcome. Therefore, it is requested that claims 1-22 of the present application be passed to issue.

If any issues remain unresolved, the Examiner is requested to telephone the undersigned attorney. Please charge any additional fees or credit any overpayments to deposit account No. 50-0896.

Respectfully submitted,

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Attachments: 6 Replacement Drawing Sheets